ARKANSAS RIVER IN ARKANSAS

Tangible property totally or partially destroyed	$300
Matured crops	1,000
Prospective crops	1,000
Livestock and other movable property	25
Suspension of business, including wages of employees	500

ESTIMATED VALUE OF PROPERTY SAVED BY WARNINGS

ATLANTIC SLOPE DRAINAGE

James River in Virginia	$11,250
Roanoke River in North Carolina	15,000
Neuse River in North Carolina	1,000
Cape Fear River in North Carolina	1,500
Peedee River in South Carolina	15,150
Congaree River in South Carolina	1,000
Catawba River in South Carolina	$14,000
Santee River in South Carolina	4,350
Savannah River in Georgia and South Carolina	1,000
Altamaha River in Georgia	10,000

EAST GULF OF MEXICO DRAINAGE

Chattahoochee River in Alabama and Georgia	3,000
Apalachicola River in Florida	2,000
Etowah River in Georgia	25,000
Pascagoula River in Mississippi	5,000
Pearl River in Mississippi	73,000

MISSISSIPPI SYSTEM

OHIO BASIN

Tennessee River in Alabama and Tennessee	100,000
Total	282,250

THE WEATHER OF THE ATLANTIC AND PACIFIC OCEANS

[By the Marine Division, W. F. McDonald in charge]

NORTH ATLANTIC OCEAN

By F. A. YOUNG

Atmospheric pressure.—Pressures were below normal during December, 1932, over the middle and eastern Atlantic. The principal area of deficiency was central well northward over Iceland, due to the persistence of the dominant Icelandic LOW. A deficiency of .07 inch in average pressure at Cape Gracias is also noteworthy for that region where barometer changes are relatively small.

The Atlantic HIGH was weakened, from the Azores eastward, but was stronger over the western portion of the ocean, with average pressures highest between Bermuda and Cape Hatteras. The largest excess in monthly averages lay somewhat farther north, however, over the Straits of Belle Isle. (See Table 1.)

The contrast in pressures thus revealed between Central American waters and the region of Cape Hatteras explains the noteworthy intensification of trade wind movement over the Caribbean Sea, where winds of force six were common during December.

TABLE 1.—*Averages, departures, and extremes of atmospheric pressure (sea level) at selected stations for the North Atlantic and its shores, December, 1932*

Stations	Average pressure	Departure from normal	Highest	Date	Lowest	Date
Julianehaab, Greenland	29.49	+0.02	30.16	8	28.80	27
Reykjavik, Iceland	29.31	−.41	30.51	10	28.28	16
Lerwick, Shetland Islands	29.80	+.08	30.53	9,10	28.42	3
Valencia, Ireland	29.86	−.08	30.55	25	28.96	31
Lisbon, Portugal	30.06	−.05	30.56	24	29.44	10
Madeira						
Horta, Azores	30.05	−.09	30.46	1,2	29.46	30
Belle Isle, Newfoundland	29.88	+.18	30.50	10	29.20	26
Halifax, Nova Scotia	30.05	+.10	30.48	11,17	29.40	31
Nantucket	30.13	+.08	30.58	17	29.42	31
Hatteras	30.20	+.07	30.57	22	29.73	31
Bermuda	30.17	+.05	30.38	22,23	29.94	1,5
Turks Island	30.05	+.02	30.14	21,22	29.88	17
Key West	30.11	+.03	30.27	2	29.98	12
New Orleans	30.12	−.01	30.54	31	29.77	30
Cape Gracias, Nicaragua	29.91	−.07	29.98	16	29.86	12,24

NOTE.—All data based on a. m. observations only, with departures compiled from best available normals related to time of observations, except Hatteras, Key West, Nantucket, and New Orleans, which are 24-hour corrected means.

Cyclones and gales.—December showed a further increase in general storminess as compared with preceding months, and gales were widespread across the main steamer lanes, notably from the 11th to 13th, 18th to 22d, and on the last two days of the month. Winds of gale force were reported from some part of the North Atlantic on all but five days in the month.

Deep cyclonic storms moved slowly across the more northern latitudes. A succession of waves of low pressure originating along a wide extent of the American coast swept eastward over the latitudes that are normally occupied by a rather persistent belt of high pressure. Twice during the month, between the 8th and 13th and from the 25th to 27th, these troughs developed into distinct cyclonic centers well out in the ocean southeast of Bermuda, and gales were reported southward nearly to the thirtieth parallel in that region on the 12th. Chart VIII, for December 9, shows an early stage of this storm.

Charts IX, X, and XI show intensified developments in the major cyclonic systems over the northern part of the Atlantic, on the 14th, 22d, and 31st. The situation depicted at the close of the month had already caused a severe gale, reaching hurricane force, on the previous day, as reported by the British S. S. *Holystone*, near 36 N., 26 W., and storm conditions continued beyond the end of December well into the New Year.

Hurricane winds also occurred within the area north of the 42d parallel, and 350 to 700 miles east of Cape Race on the 19th, as reported by the German S. S. *New York* and the Norwegian S. S. *Equatore*, both eastbound to channel ports. These conditions attended a sharp development that originated near Cape Hatteras on the 17th and moved rapidly northeastward to merge with the more extensive and persistent low-pressure systems that dominated the waters north of latitude 45° from the 13th until the end of the month.

Fog.—The distribution of fog was most unusual during December, as this condition was reported on 10 days in the northwestern part of the Gulf of Mexico and on only 2 days off the Grand Banks. Fog occurred on 6 days between the thirty-fifth and fortieth parallels and the seventieth and seventy-fifth meridians; on 5 days in the 5-degree square south of Nova Scotia, and on 1 or 2 days over other parts of the northern steamer lanes.